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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,855	12/29/2000	Nagi A. Mansour	30751	8507

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EXAMINER	
SMITH, SHEILA B	

ART UNIT	PAPER NUMBER
2681	7

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/751,855	MANSOUR, NAGI A.	
	Examiner	Art Unit	
	Sheila B. Smith	2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *25-34* is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang et al. (U. S. Patent Publication Number 2001/0033600) in view of Lim et al. (U. S. Patent Number 6,188,906) and further in view of Hall (U. S. Patent Number 6,078,571).

Regarding claims 1, 2, 6, 12, 14, 22, Yang et al. essentially discloses all of the claimed invention as set forth in the instant application, additionally Yang et al. discloses a sectorized smart antenna system and method, further Yang et al. discloses a telecommunications cell (200) in a telecommunications network, the cell (200) comprising, a plurality of antennas (204-211) oriented for subdividing the cell (200) into a plurality of sectors (232-235), each sector having two of a antenna (204-211) positioned therein; and a base station (202) coupled with the antennas for controlling wireless communication in the cell using selected ones of a defined set of codes for each of the sectors (which reads on 0032 and 0035), the base station being configured for dividing the codes between the two antennas in each sector (which reads on 0032) and as exhibited in figure 2, however Yang et al. fails to specifically disclose (a) a base station operating one of the two antennas at a first frequency for handling traffic on the first frequency, and operating the other of the two antennas at a second frequency (b) a pilot beacon for handing off calls to and from adjacent cells in a soft manner.

In the same field of endeavor, Lim et al. discloses an method for coverage optimization of multi-frequency assignment system. In addition Lim et al. discloses the use of a base station (BS1) operating at a first frequency (FA#1) for handling traffic (which reads on column 1 lines 34-36) on the first frequency, and operating the second frequency (FA#2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Yang et al. by modifying the sectorized smart antenna system and method with operating at a first frequency for handling traffic on the first frequency, and operating the second frequency as taught by Lim et al. for the purpose to equalize a handoff boundary.

The combination of both Yang et al. in view of Lim et al. fails to disclose a pilot beacon for handing off call to and from adjacent cells in a soft manner. In the same field of endeavor, Hall discloses an apparatus and method for transmitting beacon signals in a communication system. In addition Hall discloses (b) a pilot beacon for handing off calls to and from adjacent cells in a soft manner disclosed in column 3 lines 60-65.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve the combination of Yang et al. in view of Lim et al. by modifying the sectorized smart antenna system and method with operating at a first frequency for handling traffic on the first frequency, and operating the second frequency as a pilot beacon for handing off calls to and from adjacent cells in a soft manner as taught by Hall for the purpose of providing additional transmitters corresponding to the multifrequencies of the radiotelephone system.

Regarding claims 3,4,10,11,18,19, Yang et al. in view of Lim et al. and further in view of Hall discloses everything claimed as applied above (see claim 1), in addition the combination of Yang et al. in view of Lim et al. and further in view of Hall discloses the claimed invention except for the first frequency being about 1931.25 MHZ, and the second frequency being about 1933.75 MHZ. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the first frequency being about 1931.25 MHZ, and the second frequency being about 1933.75 MHZ, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. ***In re Boesch***, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claims 5,13,20, 21, Yang et al. in view of Lim et al. discloses everything claimed as applied above (***see claim 1***) however, the combination of Yang et al. in view of Lim et al. fails to specifically discloses the use of the base station being configurable to operate the second frequency for handling traffic or for handing off calls to the first frequency.

In the same field of endeavor, Hall discloses an apparatus and method for transmitting beacon signals in a communication system. In addition Hall discloses the use of a the base station being configurable to operate the second frequency for handling traffic or for handing off calls to the first frequency as disclosed in column 1 lines 65-67 and column 2 lines 1-4.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve the combination of Yang et al. in view of Lim et al. by modifying the sectorized smart antenna system and method with the base station being configurable to operate the second frequency for handling traffic or for handing off calls to the first frequency as taught by Hall for the purpose of providing additional transmitters corresponding to the multifrequencies of the radiotelephone system.

Regarding claims 7, 23, 15, Yang et al. in view of Lim et al. discloses everything claimed as applied above (***see claim 1***) however, the combination of Yang et al. in view of Lim et al. fails to specifically discloses the use of the pilot beacon provides pilot, paging, and synchronization channels.

In the same field of endeavor, Hall discloses an apparatus and method for transmitting beacon signals in a communication system. In addition Hall discloses the pilot beacon provides pilot, paging, and synchronization channels as disclosed in column 2 lines 2-7.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve the combination of Yang et al. in view of Lim et al. by modifying the sectorized smart antenna system and method with the pilot beacon provides pilot, paging, and synchronization channels as taught by Hall for the purpose of providing additional transmitters corresponding to the multifrequencies of the radiotelephone system.

Regarding claims 8,16,24, Yang et al. in view of Lim et al. and further in view of Hall discloses everything claimed, as applied above (see claim 1) additionally, Yang et al. discloses the telecommunications network is a CDMA telecommunications network in (as disclosed in 0002).

Regarding claim 9, Yang et al. in view of Lim et al. discloses everything claimed, as applied above (see claim 1) additionally, the combination of Yang et al. in view of Lim et al. discloses a method of operating a cell having an antenna site in a telecommunications network, the method comprising the steps of:(a)transmitting and receiving telecommunications at the antenna site by way of a plurality of antennas (204-211) configuring the site into a plurality of sectors (222-229), each of the sectors including two antennas (204-211); (b)using a single base station unit (202) coupled with the antennas for controlling the transmitting and receiving over one of the two antennas (204-211) in each sector (222-229), over a first frequency using selected ones of a defined set of codes (which reads on 0032 and 0035); and (c)using the base station unit as a pilot beacon over a second frequency using selected ones of a defined set of codes for handing off calls between adjacent cells in a soft manner (which reads on 0035) and as exhibited in figure 2. However Yang et al. in view of Lim et al. fails to specifically disclose a PCS telecommunications network.

In the same field of endeavor, Hall discloses an apparatus and method for transmitting beacon signals in a communication system. In addition Hall discloses the use of a PCS telecommunications network as disclosed in column 3 lines 15-16.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve the combination of Yang et al. in view of Lim et al. by modifying the sectorized smart antenna system and method with a PCS telecommunications network as taught by Hall for the purpose of providing additional transmitters corresponding to the multifrequencies of the radiotelephone system.

Allowable Subject Matter

2. Claims 25-34 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheila B. Smith whose telephone number is (703)305-0104. The examiner can normally be reached on Monday-Thursday 6:00 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Erika Gary can be reached on 703-308-0123. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Smith
July 11, 2004

ERIKA GARY
PATENT EXAMINER